CLAIMS

We claim:

1. Watertight decking, comprising:

a first end panel, a second end panel, and at least one intermediate panel disposed between said first and second end panels, each of said panels being a rigid, load-bearing extrusion having a generally flat, planar upper surface and a bottom surface opposite said upper surface;

said first end panel and said intermediate panel each further including:

a first attachment edge;

a tongue extending along said first attachment edge;

a channel first wall depending from each said first attachment edge, and having an upper edge and a lower edge opposite said upper edge thereof;

a channel floor extending from said lower edge of said channel first wall, and having a first wall edge and a second wall edge opposite said first wall edge thereof;

a channel second wall extending from said second wall edge of said channel floor, spaced apart from and generally

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parallel to said channel first wall, and having a lower edge and an upper edge opposite said lower edge thereof with said upper edge spaced apart from said first attachment edge;

an attachment flange extending outwardly from said lower edge of said channel second wall, generally coplanar with said channel floor;

said second end panel and said at least one intermediate panel each further including:

a second attachment edge;

a groove disposed along said second attachment edge, engaging said tongue of said first attachment edge of said first end panel and said intermediate panel when assembled therewith; and

a drip rail depending from said second end panel and said intermediate panel and spaced apart from said second attachment edge thereof, extending into said channel of said first end panel and said intermediate panel and bearing against said channel second wall and wedging said groove of said second attachment edge tightly against said tongue of said first attachment edge, forming a tongue and groove assembly and preventing relative lateral movement

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between adjoining panels when at least two of said first end panel, said second end panel, and said at least one intermediate panel are assembled together.

2. The watertight decking according to claim 1, wherein said drip rail further includes an arcuately convex contact surface bearing against said channel second wall and smoothly increasing engagement pressure of said groove of said first attachment edge against said tongue of said second attachment edge when at least two of said first end, intermediate, and second end panels are assembled together.

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3. The watertight decking according to claim 2, further including:

a locking groove disposed along said channel second wall, facing said drip rail; and

a locking bead disposed along said contact surface of said drip rail, lockingly engaging said groove of said channel second wall when at least two of said first end, intermediate, and second end panels are assembled together.

4. The watertight decking according to claim 1, wherein said drip rail further includes a sharp, lower edge for precluding capillary flow of moisture.

5. The watertight decking according to claim 1, wherein the upper edge of said channel second wall is spaced apart from the bottom surface of the overlying one of said panels when assembled together, and defines a gap therebetween.

6. The watertight decking according to claim 1, further including a resilient, moisture sealing bead disposed within said tongue and groove assembly when at least two of said first end, intermediate, and second end panels are assembled together.

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7. Watertight decking, comprising:

a first end panel, a second end panel, and at least one intermediate panel disposed between said first and second end panels, each of said panels being a rigid, load-bearing extrusion having a generally flat, planar upper surface and a bottom surface opposite said upper surface;

said first end panel and said at least one intermediate panel each further including:

a first attachment edge;

a tongue and groove assembly first component extending along each said first attachment edge;

a channel first wall depending from each said first attachment edge, and having an upper edge and a lower edge opposite said upper edge thereof;

a channel floor extending from said lower edge of said channel first wall, and having a first wall edge and a second wall edge opposite said first wall edge thereof;

a channel second wall extending from said second wall edge of said channel floor, spaced apart from and generally parallel to said channel first wall, and having a lower edge and an upper edge opposite said lower edge thereof

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with said upper edge spaced apart from said first attachment edge;

an attachment flange extending outwardly from said lower edge of said channel second wall, generally coplanar with said channel floor;

said second end and said intermediate panels each further including:

a second attachment edge;

a tongue and groove assembly second component disposed along said second attachment edge engaging said tongue and groove assembly first component of said first attachment edge of said first end panel and said intermediate panel when assembled therewith; and

a drip rail depending from said second end panel and said intermediate panel and spaced apart from said second attachment edge thereof, extending into said channel of said first end panel and said intermediate panel and bearing against said channel second wall and wedging said first component and said second component of said tongue and groove assembly respectively of said first and said second attachment edge tightly together, completing said tongue and groove assembly and preventing relative lateral

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movement between adjoining panels when at least two of said first end panel, said second end panel and said intermediate panel are assembled together, said drip rail having a sharp lower edge for precluding capillary moisture flow.

8. The watertight decking according to claim 7, wherein:

said tongue and groove assembly first component comprises a tongue; and

said tongue and groove assembly second component comprises a groove.

9. The watertight decking according to claim 7, wherein said drip rail further includes an arcuately convex contact surface bearing against said channel second wall and smoothly increasing engagement pressure of said tongue and groove assembly when at least two of said first end, intermediate, and second end panels are assembled together.

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10. The watertight decking according to claim 9, further including:

a locking groove disposed along said channel second wall, facing said drip rail; and

a locking bead disposed along said contact surface of said drip rail, lockingly engaging said groove of said channel second wall when at least two of said first end, intermediate, and second end panels are assembled together.

11. The watertight decking according to claim 7, wherein said upper edge of said channel second wall is spaced apart from said bottom surface of the overlying one of said panels when assembled together, and defines a gap therebetween.

12. The watertight decking according to claim 7, further including a resilient, moisture sealing bead disposed within said tongue and groove assembly when at least two of said first end, intermediate, and second end panels are assembled together.

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13. Watertight decking, comprising:

a first end panel, a second end panel, and at least one intermediate panel disposed between said first and second end panels, each of said panels being a rigid, load-bearing extrusion having a generally flat, planar upper surface and a bottom surface opposite said upper surface;

said first end panel and said at least one intermediate panel each further including:

a first attachment edge;

a tongue and groove assembly first component extending along each said first attachment edge;

a channel first wall depending from each said first attachment edge, and having an upper edge and a lower edge opposite said upper edge thereof;

a channel floor extending from said lower edge of said channel first wall, and having a first wall edge and a second wall edge opposite said first wall edge thereof;

a channel second wall extending from said second wall edge of said channel floor, spaced apart from and generally parallel to said channel first wall, and having a lower edge and an upper edge opposite said lower edge thereof

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with said upper edge spaced apart from said first attachment edge;

an attachment flange extending outwardly from said lower edge of said channel second wall, generally coplanar with said channel floor;

said second end panel and said at least one intermediate panel each further including:

a second attachment edge;

a tongue and groove assembly second component disposed along said second attachment edge engaging said tongue and groove assembly first component of said first attachment edge of said first end panel and said intermediate panel when assembled therewith;

a drip rail depending from said second end panel and said intermediate panel and spaced apart from said second attachment edge thereof, extending into said channel of said first end panel and said intermediate panel and bearing against said channel second wall and wedging said first component and said second component of said tongue and groove assembly, respectively, of said first and said second attachment edge tightly together, completing said tongue and groove assembly and preventing relative lateral

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movement between adjoining panels when at least two of said first end, intermediate, and second end panels are assembled together; and

wherein said upper edge of said channel second wall is spaced apart from said bottom surface of the overlying one of said panels when assembled together, and defines a gap therebetween.

14. The watertight decking according to claim 13, wherein:

said tongue and groove assembly first component comprises a tongue; and

said tongue and groove assembly second component comprises a groove.

15. The watertight decking according to claim 13, wherein said drip rail further includes a sharp lower edge for precluding capillary flow of moisture.

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16. The watertight decking according to claim 13, wherein said drip rail further includes an arcuately convex contact surface bearing against said channel second wall and smoothly increasing engagement pressure of said tongue and groove assembly when at least two of said first end, intermediate, and second end panels are assembled together.

17. The watertight decking according to claim 16, further including:

a locking groove disposed along said channel second wall, facing said drip rail; and

a locking bead disposed along said channel second wall contact surface of said drip rail, lockingly engaging said groove of said channel second wall when at least two of said first end, intermediate, and second end panels are assembled together.

18. The watertight decking according to claim 13, further including a resilient, moisture sealing bead disposed within said tongue and groove assembly when at least two of said first end, intermediate, and second end panels are assembled together.

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